

### **Abstract**

**Background:** There is a lack of a tool to identify patients with high violent propensity in a local psychiatric in-patient setting. Existing instruments, such as actuarial methods and structural clinical assessments have inadequacies when assessing short term violent propensity of psychiatric inpatients. Hence, Broset Violence Checklist was used in this unit to see if it could identify patients with high violent propensity in the short term.

Broset Violence Checklist is a tool which identifies the violent propensity of psychiatric inpatients within 24 hours. It has six items: confusion, irritable, boisterous, verbal threats, physical threats and attacking objects. A score of one is given to each manifestation that is present, no score is given if it is absent. Hence, Broset Violence Checklist scores range from zero to six. It has been shown to be useful in identifying imminently violent patients. This helps the planning and implementation of measures to decrease violence risk, making psychiatric wards safer for both staff and patients.

**Aim:** To investigate the sensitivity, specificity and interrater reliability of the Broset Violence Checklist in the gazetted psychiatric (admission) wards of Kowloon Hospital in Hong Kong.

**Method:** A prospective study was conducted in the four gazetted psychiatric wards. All 372 consecutive admissions were rated with the Broset Violence Checklist on each nursing shift during the first three days of admission. Information on patient demographics, the Broset Violence Checklist scores and data of violent incidents were collected for analyses.

**Results:** For a cut-off score of one (i.e. scoring one or above indicating imminent violence), the Broset Violence Checklist showed a sensitivity of 84.7%, 71.0% and 61.4% for predicting same shift violence, two-shift and 24 hour predictions respectively. The specificities were over 95% for all three predictions. For interrater reliability, the proportions of rater agreement ranged from 71.5% to 88.8%, while Fleiss' kappa suggested fair to good agreement between raters. Factor analysis revealed one factor. A shortened Broset Violence Checklist with only two items with the highest factor loadings revealed similar sensitivity and specificity compared to the full Broset Violence Checklist.

**Conclusion:** The Broset Violence Checklist is a useful screening tool, as it had good predictive ability and interrater reliability when used in a psychiatric centre in Hong Kong. As it is quick and easy to complete, routine use in psychiatric wards for identification of imminent violence can be considered.